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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/730,289

12/09/2003

Pierre Rieuvonet

1509-439

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22879

7590

07/28/2006

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FORT COLLINS, CO 80527-2400

EXAMINER

CARPIO, IVAN HERNAN

ART UNIT

PAPER NUMBER

2841

DATE MAILED: 07/28/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/730,289	Applicant(s) RIEUVERNET ET AL.	
	Examiner Ivan H. Carpio	Art Unit 2841	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 5/9/2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 21-39 is/are pending in the application.
- 4a) Of the above claim(s) 31-34 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 21-29 and 35-39 is/are rejected.
- 7) ☒ Claim(s) 30 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

Applicant's arguments with respect to claims 21-39 have been considered but are moot in view of the new ground(s) of rejection.

Claim Objections

Claim 27 is objected to under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. In particular the language of claim 27 is confusing, specifically "...a non-electrically conductive conductive material carrying an electrical conductor...". Examiner will read this claim as "a non-electrically conductive material carrying an electrical conductor" for prosecution purposes.

Claim 37 is objected to for not pointing out and distinctly claiming the invention, in particular claim 37 states "...wherein the longest dimension of cross sections of the passage wherein the wall passages have a...", examiner believes this to be a typo and reads the preceding claim as "wherein the wall passagés have a substantially constant cross sectional area between the opposite surfaces of the shield mass".

Claim Rejections - 35 USC § 102

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 21 -*** are rejected under 35 U.S.C. 102(b) as being anticipated by Hailey (US Patent 6252161).

With respect to claim 21 Hailey teaches a personal computer (Fig. 4) adapted to generate electromagnetic radiation having frequencies in a known frequency range, comprising a wall (Fig. 7, element 700) carrying a grounded electromagnetic shield mass (Fig. 7, element 200) having passages (Fig. 2, elements 202 and 204, column 6, lines 4-10) with electrically conductive surfaces sized and shaped to substantially confine the electromagnetic radiation having the frequencies in the known frequency range to the interior of the personal computer, and provide relatively low thermal impedance path for escape, from the computer, of thermal energy generated in the computer, the shield having stationary surfaces (Fig. 7) with respect to the wall.

With respect to claim 22 and with all the limitations of claim 21, Hailey teaches that the surfaces include walls that extended directly between opposite surfaces of the shield (Fig. 2).

With respect to claim 27 and with all the limitations of claim 21, Hailey teaches that the mass is carried by a non-electrically conductive material carrying an electrical conductor (column 4, lines 28-37) that grounds (Fig. 7, element 702) the electrically conductive surface of the passage.

With respect to claim 35 Hailey teaches all of the limitations and is rejected the same as claim 21 above.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 23 and 36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hailey.

With respect to claims 23 and 36 and with all the limitations of claims 22 and 35 respectively, Hailey teaches all of the limitations but does not teach specifically that the longest dimension of cross sections of the passages between the opposite surfaces of the shield mass is no more than 10% of the wavelength of the highest frequency in the range. It is well known in the art to choose the dimensions of the passages in a shield depending on what frequencies we want to attenuate, and in particular what frequencies are harmful surrounding components. Hailey teaches that the largest dimension of the passages cross section can be found by the following equation $D = 6.9 \times 10^9 / f(\text{hertz})$, as can be seen the diameter depends on the choice of cutoff frequency and thus the cutoff frequency must be chosen to determine the aperture size. It would have been obvious to one of ordinary skill in the art at the time of the invention to choose the dimensions of the passages to any necessary size, including no more than 10% of the wavelength of the highest frequency, for the purpose of attenuating harmful frequencies. Furthermore it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. *In re Aller*, 105 USPQ 233.

With respect to claims 24 and 37 and with all the limitations of claims 23 and 36 respectively, Hailey teaches that the wall passages have a substantially constant cross sectional area (Fig. 2) between the opposite surfaces of the wall.

With respect to claims 25 and 38 and with all the limitations of claims 22 and 35 respectively, Hailey teaches that the wall passages include grounded conductive tubes (Fig. 7, note since the housing is grounded and electrically connected to the shielding (200) then the conductive tubes (Fig.2, elements 204 and 206) are grounded).

Claims 26, 28 and 39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hailey in view of Daoud (US Patent 6781851).

Hailey teaches all of the limitations of claims 26 and 39 except that the passage walls include grounded electrically conductive painted surfaces. Daoud teaches passages walls that include electrically conductive painted surfaces (column 2, lines 61-65). It would have been obvious to one of ordinary skill in the art to have the passage walls include grounded electrically conductive painted surfaces for the purpose of increasing conductivity with a minimal increase in weight.

Hailey teaches all of the limitations of claim 28 except that the electrical conductors include conductive paint on the non-electrically conductive material. Daoud teaches electrical conductive paint (column 2, lines 61-65) on non-electrically conductive material. It would have been obvious to one of ordinary skill in the art to have the electrical conductors include conductive paint on the non-electrically

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conductive material for the purpose of increasing conductivity with a minimal increase in weight.

With respect to claim 29 and with all the limitations of claim 27, Hailey teaches all of the limitations except that the non-electrically conductive material is a foam, and the electrical conductive particles impregnated in the foam. Daoud teaches a shield that includes a foamed material having conductive particles impregnated in the foam (column 5, line 4). It would have been obvious to one of ordinary skill in the art at the time of the invention to use the foam material, taught by Daoud, on the shield because doing so makes the shield lighter and also allows air to penetrate the casing for cooling purposes.

Allowable Subject Matter

Claim 30 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter: There is simply no evidence in the prior art teaching a holder on the wall that maintains the shield mass in place in the opening, the holder being arranged, and the opening and shield mass having geometries so the peripheral edges of the opening abut corresponding edges of the shield mass, except where the holder is located, the holder being electrically conductive so that an electric connection between the shield mass and the grounded wall portion is established through the holder, furthermore there is no evidence making this obvious.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

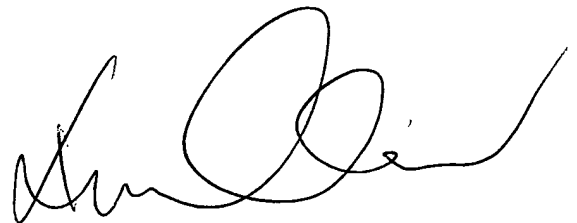
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ivan H. Carpio whose telephone number is 571-272-8396. The examiner can normally be reached on M-R 6:00am - 4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kammie Cuneo can be reached on 571-272-1957. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

IC

A handwritten signature in black ink, appearing to read 'Kamand Cuneo', with a large, stylized loop at the end.

**KAMAND CUNEO
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2800**